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REPORT OF THE
MEDICAL OFFICER
OF HEALTH

For the Year Ending 31st December,
1947

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Vice-Chairman—

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(Resigned June, 1947).

Sanitary Inspector—H. E. RAINE, M.C., C.R.S.I., M.S.I.A.
(Promoted Senior Sanitary Inspector July, 1947).

Sanitary Inspector—R. R. SHORT, C.R.S.I., M.S.I.A.

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Sanitary Inspector—E. PHILBIN, B.A., C.R.S.I., M.S.I.A.,
(Resigned November, 1947).

Sanitary Inspector—J. R. DAY, C.S.I.B., M.S.I.A., M.R.S.I.
(Appointed May, 1947).

Sanitary Inspector—W. C. RANSON, C.R.S.I., M.S.I.A.
(Appointed October, 1947, resigned December, 1947).

Sanitary Surveyor—C. W. CLARKE, A.M.I.Mech.E., A.M.I.
Struct.E., F.I.A.S.

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Thorpe Infectious Diseases Medical Superintendent :—
E. F. DAWSON-WALKER, M.D., B.S., B.Hy., D.P.H.

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EASINGTON RURAL DISTRICT.

REPORT

OF THE

Medical Officer of Health

FOR THE

Year ended 31st December, 1947.

EASINGTON,

Co. DURHAM,

1948.

Mr. Chairman, Councillor Mrs. Winter, and Gentlemen,

I have pleasure in submitting to you the Annual Report on the health and sanitary conditions of your district for the year 1947.

As has been the practice in recent years a detailed account of the work of the department is given in the various sections of the report, much of which is presented in tabular form.

The final section, which gives an account of the work of the Sanitary Inspectors' Department, has been contributed by the Senior Sanitary Inspector.

The action of certain Medical Officers of Health in issuing their annual reports in a more popular form has been much commended by the Medical Press, the idea being that each issue should be something in the nature of a popular "best seller." While a report of this type may be feasible in the case of the larger authorities it is hardly possible in the more restricted sphere of a Rural District Council, and this report perforce remains a somewhat humdrum compilation of facts and figures.

In this introductory letter, however, the main points of interest in the various sections are presented, with some comment on the outstanding features of 1947.

Those seeking more detailed information on any aspect of the work should refer to the appropriate sections in the body of the report.

Vital Statistics—Birth Rate.

The figure of 22.04 per 1,000 of the population shows an increase on that for 1946 which was 21.99. It is only a fraction below the figure for 1944, namely 22.2 which was the highest recorded since 1932. This is higher than the rate for England and Wales as a whole (20.5) and just below that for the 148 smaller towns (22.2). It will thus be seen that fertility of the population remains at a relatively high level.

A diagram has been prepared showing the average birth rate per 1,000 of the population in the Easington Rural District for each five year period from 1895 to 1944. This diagram (fig. 1) shows that there has been a steady decline in the birth rate over the last half century, with the exception of a slight rise after each of the two world wars. The birth rate of 22.04 in 1947 is only a little over half of the figure for 1895 which was 40.53 per 1,000 of the population.

**BIRTH RATE
PER THOUSAND POPULATION**

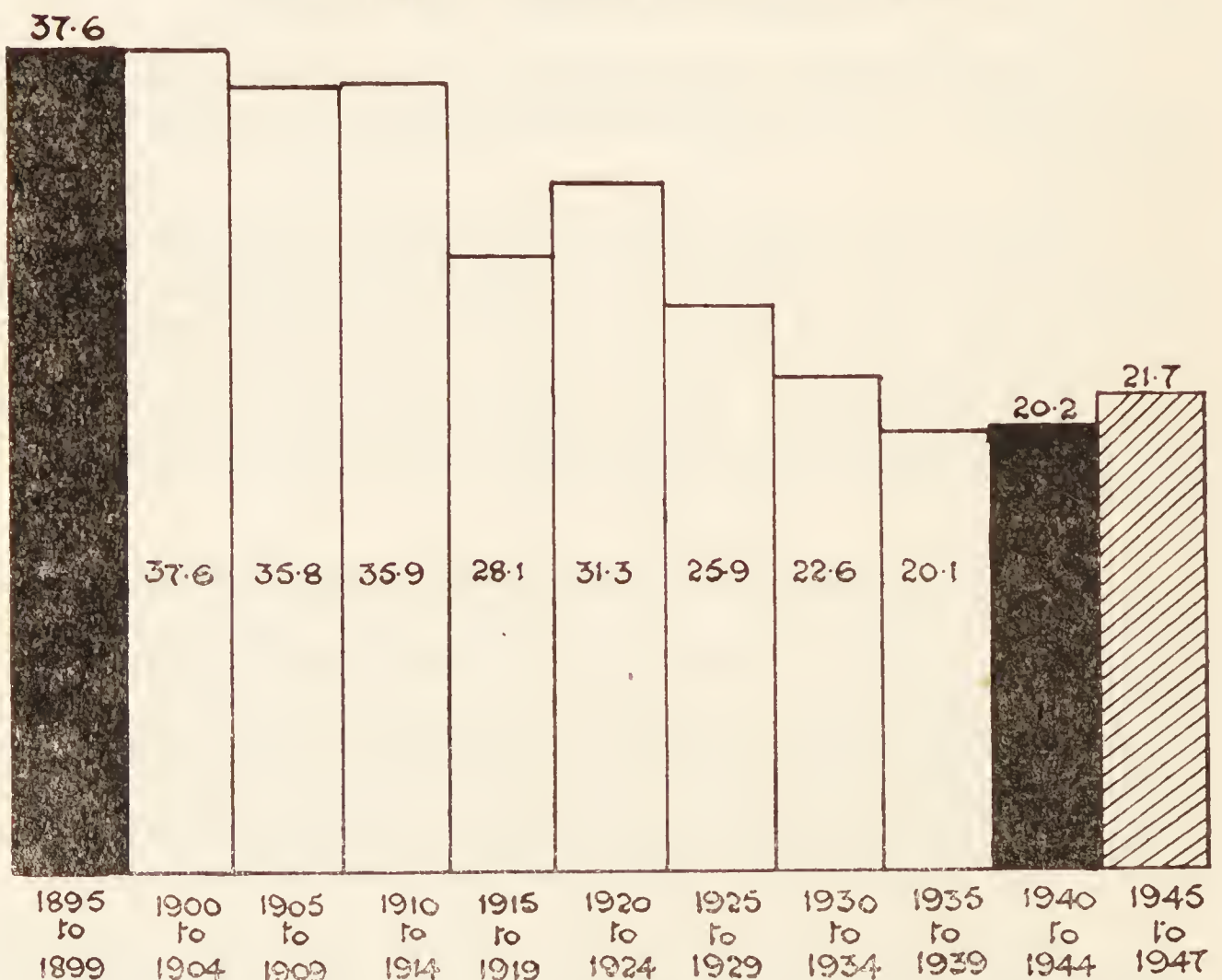


Fig. 1. Diagram shewing the average birth rate per 1,000 population in Easington Rural District for each quinquennium from 1895-1944. The hatched column indicates the average rate for the three years 1945-47.

General Death Rate.

The figure for the general death rate of 10.8 per 1,000 of the population is slightly above that for 1946 which was 10.15. The increase is hardly significant and the figure compares favourably with that of 12.0 for England and Wales.

Fig. 2 shows the average death rate per 1,000 of the population in five year periods from 1895. It will be seen to indicate a progressive fall until 1925, after which time the rate has remained more or less stationary. As we must all die sometime and the average age of the population is increasing, there is unlikely to be any further fall. On the contrary the figure may well slightly increase.

DEATH RATE PER THOUSAND POPULATION

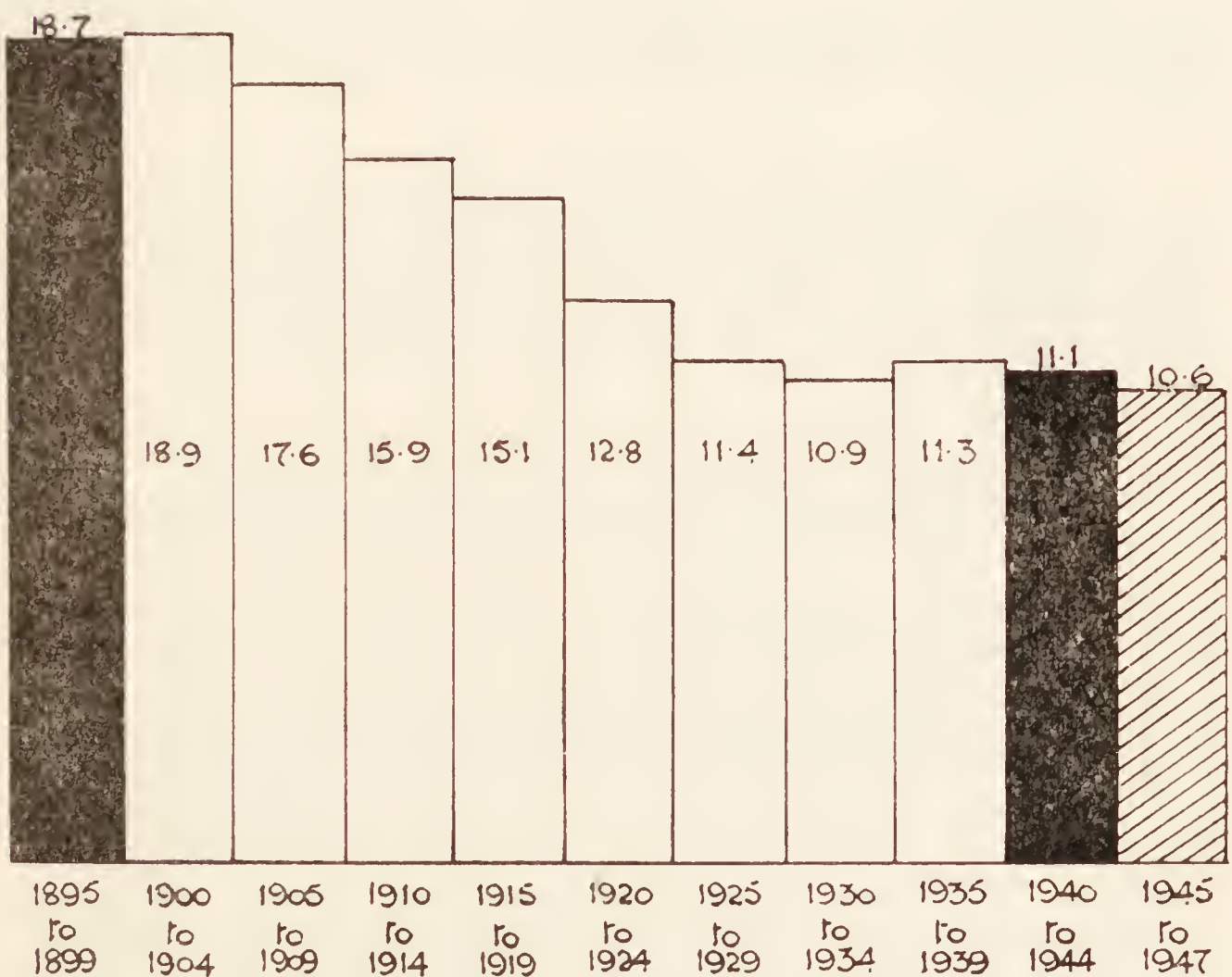


Fig. 2. Diagram shewing the average death rate per 1,000 population in Easington Rural District for each quinquennium from 1895-1944. The hatched column indicates the average rate for the three years 1945-47.

Infantile Mortality.

While it is true to say that death is eventually inevitable for all, it remains a tragic fact that many lives are cut short by illness and disease before the Psalmist's "three score years and ten" have been attained. Few deaths are more sad than those of infants in their first year, whose lives are thus ended almost before they have begun.

The death rate for all infants under one year of age per 1,000 live births is known as the infantile mortality rate, and the figure for the area in 1947 was 63.1. This is an increase of 10 on the figure for 1946 which was 53.11, and it is four years since the figure for the area was as high. At the same time the figure of 63.1 compares unfavourably with that for England and Wales, which was 41.

Out of a total of 111 deaths of infants under one year 52, (46.8%), occurred in the first four weeks of life, a neo-natal mortality rate of 29.5 per 1,000 live births. In 15 of these cases prematurity was given as the primary cause of death and in 11 as a contributory cause. There were 15 deaths from diarrhoea and enteritis in children under two years of age, as contrasted with 9 in 1946.

The increase in the infantile mortality rate as compared with the previous year, and the realisation that the figure for this district is 53% higher than the national figure are both disturbing facts that cannot be ignored. There are three main factors which will reduce the infantile mortality rate :—

- (1) Efficient ante-natal and child welfare services.
- (2) Adequate nutrition of the mother and child.
- (3) A satisfactory standard of housing accommodation.

As regards the first of these requirements it can be said that the need is being reasonably met, though of course every service is capable of improvement. The second also, under present day conditions, is largely forthcoming owing to the setting up of a system of priorities for nursing mothers and infants. It is probably the third factor which is chiefly lacking and which may account to a considerable degree for the disappointing state of affairs. With this adverse factor must be linked a standard of mothercraft lower than it should be, as was mentioned in last year's report. Moreover if breast feeding were more widely practised than is at present the case, infants would thrive better and the unnecessarily large number of deaths due to enteritis would be reduced.

While the infantile mortality rate for 1947 is disappointing it is necessary to preserve a sense of proportion, and a glance at fig. 3, which sets out in graphic form the average rate in five yearly periods since 1895, will show the reduction which has been achieved in the last fifty years. The figure, in this area at any rate, has not reached an irreducible minimum, and further progress should be made on the lines indicated above.

INFANTILE MORTALITY RATE PER THOUSAND CHILDREN BORN

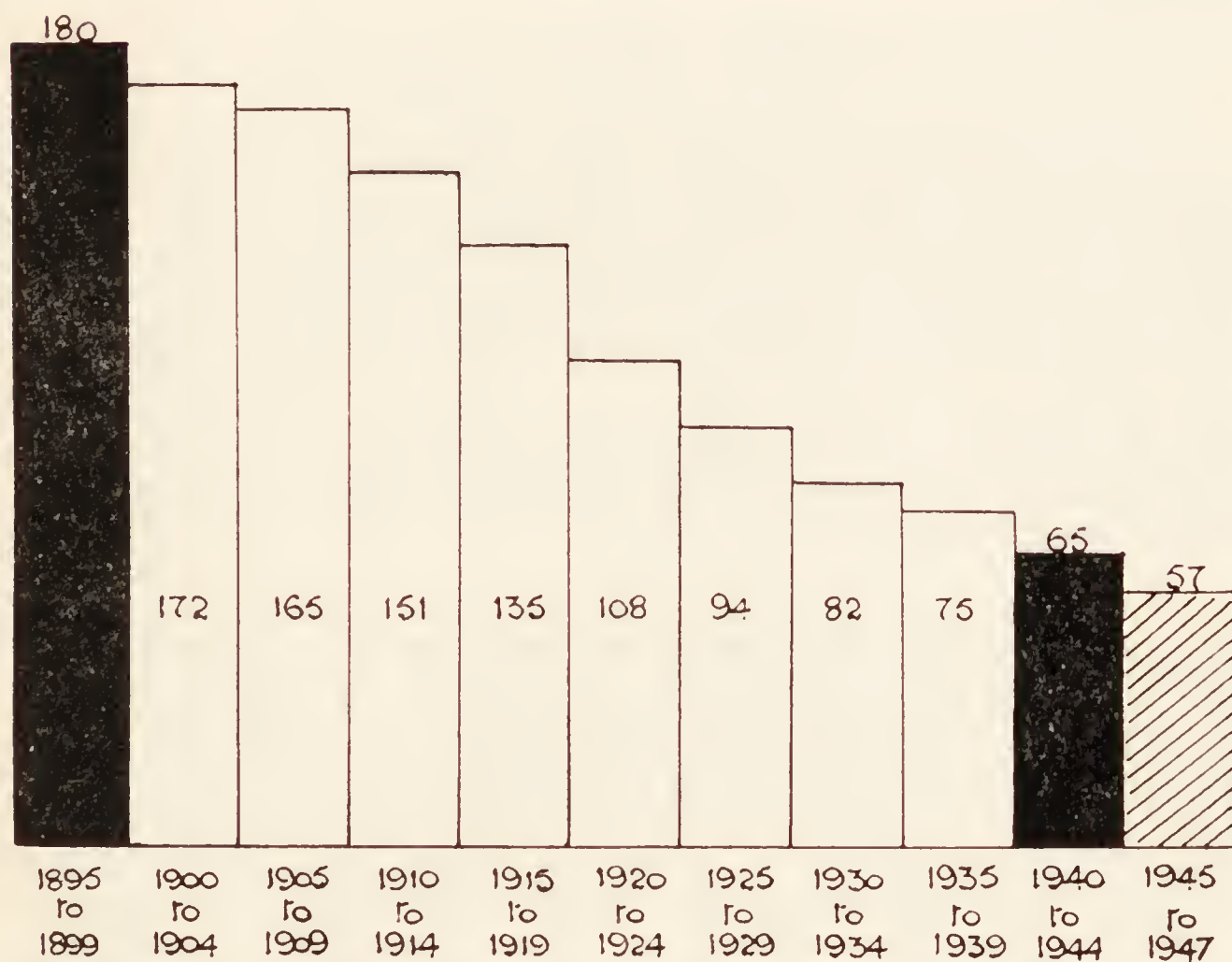


Fig. 3. Diagram shewing the average infantile mortality rate per 1,000 live births in Easington Rural District for each quinquennium from 1895-1944. The hatched column indicates the average rate for the three years 1945-47.

Maternal Mortality.

Here again a slight retrogression must be recorded. Whereas in 1945 there were no maternal deaths in the area, and in 1946 only one, in 1947 there were three. Of these two were due to sepsis, one of which followed an abortion.

The maternal mortality rate for 1947 was 1.66 as opposed to 0.55 in 1946 and nil in 1945, and compares unfavourably with the figure of 1.17 for England and Wales.

It is more satisfactory to record that the number of notified cases of puerperal pyrexia was only five as compared with six in 1946 and 12 in 1945.

The acute housing shortage continues to cause heavy pressure on the available maternity beds. The inadequacy of this accommodation for the population of the district has been stressed in previous reports, and it is a matter to which the newly formed Regional Hospital Board may with advantage direct its early attention.

Individual Causes of Death.

Turning to the question of the individual causes of death, heart disease retains its place at the head of the list. Cancer has, however, been displaced from the second position, which it has held for a number of years, by diseases of the arteries and veins of the brain, and now holds the third place. Cancer is followed by pneumonia and bronchitis, while deaths due to tuberculosis (all forms) were in 1947 slightly in excess of those grouped as due to diseases of early infancy and congenital malformations. There is little to add in this connection to what was said in last year's report.

Rheumatism is a fertile source of heart disease and it is of interest to note that a special committee has been set up by the Minister of Health, the terms of reference of which are "to consider the prevention and management of rheumatic heart disease," while a national centre for research into the causes and treatment of cardiac rheumatism in children is also being established at Taplow, Bucks. It is from sources such as these, and from the research into cancer which is constantly in progress, that the means and methods to combat these two diseases will eventually emerge.

Tuberculosis.

The statistics for this disease are set out and summarized in the relevant section of the report.

The number of new cases of the pulmonary form of the disease increased considerably, while the number of notifications of the non-pulmonary form was diminished by one. The number of deaths from both forms of the disease increased in comparison with 1946.

When comparison is made with the rates for England and Wales it will be seen that the mortality rate of the district for the pulmonary form of the disease is a fraction below the national figure, but that the non-pulmonary rate is well above the corresponding figure. These facts are by no means reassuring, but an early solution of the problem is not easy to find. Certain lines of approach, however, stand out clearly. In the case of the pulmonary type overcrowding combined with a lack of institutional accommodation for advanced cases are potent factors in the spread of the disease. Too often such cases spend the terminal stages of their illness in an overcrowded dwelling inhabited by young children, who sometimes are compelled even to sleep in the same room as the patient.

The provision of adequate institutional accommodation both for the active treatment of early cases and for the segregation of advanced cases is most urgently needed, but the responsible authorities are thwarted in their efforts to provide this by shortage of staff, both nursing and domestic. To quote from the annual report of the Chief Medical Officer of the Ministry of Health for 1946, "it is tantalizing to reflect what could have been done to reduce the waiting list if all the beds provided had been adequately staffed."

This is not the place for a discussion on the nursing problem except to say that, with the possible exception of the mental hospitals, in no section is it more pressing and more difficult to solve than in the case of tuberculosis.

In 1947 the preliminary steps were taken by the Durham County Council to set up a mass radiography unit in the district. Given the willing co-operation of the populace this will enable a number of cases to be detected in the earliest stages of the disease when prompt treatment is most likely to be effective. Here again, the advantages of the scheme are likely to be reduced if suitable institutional treatment cannot be provided owing to shortage of staff.

Turning to the question of non-pulmonary tuberculosis a line of action is available which, if generally adopted, would lead to a considerable decline in the incidence of the disease, namely the efficient pasteurisation of all milk sold to the public. There is clear evidence to show that the incidence of tuberculosis of bovine origin falls as the percentage of pasteurised milk consumed rises. This advocacy of pasteurisation must not be taken as suggesting the routine application of the process to all milk however indifferent in quality, but rather the efficient pasteurisation as an additional safeguard of milk already as clean and wholesome as care in its production can make it.

To an unbiassed mind the evidence in favour of pasteurisation is overwhelming and it is disturbing to read that at the annual conference of the Rural District Councils' Association, held in July, 1948, the discussion after the reading of a paper urging the need for pasteurisation revealed a strong body of opinion against the process. It is this attitude of mind which led Prof. G. S. Wilson to write in the preface to his book on the subject, which should be read by all interested persons, "it is useless for men of science to expect that a careful presentation of the facts will make any impression on the minds of those who, whether from unreasonable conviction or from a repressed suspicion of the weakness of their own case, are prepared to resort to half truths, unverifiable assertions, or as experience has shown, actual falsehoods in support of their contentions."

Infectious Disease.

The notifications of these diseases are set out in the report and, with one exception, do not call for much comment.

There was a definite rise in the number of cases of scarlet fever, though fortunately without any obvious increase in the virulence of the disease. Diphtheria and measles both showed a decline while there was a slight increase in the number of cases of whooping cough. The fall in the incidence and mortality of diphtheria would seem to show that the intensive immunisation campaign conducted during recent years is now showing results, but constant effort and propaganda will be needed to maintain this position. It is also very necessary to emphasize to parents the seriousness of both measles and whooping cough, especially when occurring in children under three years of age. There is a widespread tendency to make light of these two diseases, which carry with them comparatively high mortality rates and not infrequently a train of subsequent ill-health, and to be unduly worried over a mild attack of scarlet fever. It is possible that the somewhat out-moded system of enquiry and disinfection which is traditionally associated with the latter disease is partly responsible for this misplaced emphasis.

The outstanding epidemiological feature of the year was the epidemic, almost amounting to a pandemic, of poliomyelitis which occurred in the early autumn and which this area did not escape. Thirty-eight cases of this disease were notified and there were three deaths. Further details of the cases are given in the section of the report dealing with Thorpe Isolation Hospital. Arrangements were made for the admission to hospital of all suspected cases and full advantage was taken of the facilities provided by the County Medical Officer of Health for consultant

orthopaedic advice and the subsequent transfer to the orthopaedic department at Cherry Knowle Emergency Hospital of any cases needing such treatment.

A helpful article on the early diagnosis of the disease in one of the leading medical journals was, by permission of the editor, reproduced and circulated to all practitioners in the area. It is disappointing to have to admit that at the termination of the epidemic our knowledge of the method of spread of this disease and of the means for its prevention was much the same as at its commencement, in spite of the vast amount of inquiry and research carried out.

Thorpe Hospital.

The number of cases admitted during the year was 435, an increase on the figures for 1946 and 1945 which were 366 and 308 respectively. Of these cases 92 were from the Seaham Urban District Authority. Particulars of the cases treated are given in the section of the report dealing with the hospital, together with a more detailed account of those admitted suffering from poliomyelitis.

During the year a start was made with the erection of hatted buildings to provide further accommodation for nursing and domestic staff, but owing to difficulties in the supply of labour and materials only slow progress was made.

In the same period two ward sisters were appointed and the number of fever trained nurses was increased to six, thus much increasing the proportion of trained personnel on the staff. This improvement was unhappily not maintained in 1948. These steps were taken in an attempt to achieve for the hospital the status of an affiliated training school for fever nurses, as mentioned in the previous report.

The male staff also was increased by the appointment of an apprentice gardener and a night watchman.

Diphtheria Immunisation.

The statistics dealing with this important aspect of the work are set out in the appropriate sections.

Of the estimated child population under five years of age 42.47% have been immunised ; of those between the ages of five and fourteen years inclusive 70.23% have been immunised ; and the percentage of children of fifteen years of age and under who

have been immunised is 60.32. These figures show a slight regression on those attained last year, a fact which indicates that, as has been said, constant effort in the form of propaganda, both general and personal, will be needed if the present position is to be even maintained let alone improved on. A plea is again made for a more extensive use of health visitors in this type of work, for the reasons stated in last year's report.

Two points are worthy of note. Firstly the increase in the number of children immunised at the child welfare centres, and secondly the increase in the number of reinforcing or "booster" doses given. Examination of the age groups of cases coming into hospital shows that the disease is tending to become one of early adolescence rather than of early childhood. This is explained by the fact that the protection conferred on children immunised in infancy tends to wane with the passage of years. This protection can be maintained by additional single injections at intervals and one such injection should always be given before a child attains school age.

Scabies.

The number of cases attending the clinic fell considerably during the year and the incidence of the disease in the area is certainly much less than it was during the war years. It is, however, by no means extinct, and it is doubtful whether sufferers are making full use of the facilities for treatment which have been provided. This reluctance to attend the clinic, which appears to arise from a mistaken impression that infection with the condition somehow is reprehensible, is unfortunate, since few infections yield so quickly to efficient treatment. One's personal feeling is that the clinic should be maintained although the numbers attending are so much smaller than in previous years.

Water.

The quality of the piped water supply to the district, as shown by the routine bacteriological examination of samples, remains satisfactory.

Farms supplying milk, without a mains supply, remain a perpetual source of anxiety, but unfortunately in many cases the cost of obtaining such a supply would be prohibitive. These farms are kept constantly under review, and where it would appear that a mains supply is a practicable proposition every effort is made to have this provided.

Sanitary Condition of the Area.

The section of the report dealing with this matter has been contributed by the Senior Sanitary Inspector, and contains much information of interest. With it is incorporated a brief section dealing with such matters as housing, sewerage, etc., contributed by the Engineer and Surveyor, and one on public cleansing by the Cleansing Superintendent.

In the latter part of the year the amount of work involved in connection with applications for building licences reached formidable proportions and was absorbing a wholly disproportionate amount of the inspectors' time, with the consequence that other work was falling seriously into arrears. After representations to the Council other arrangements were made for the carrying out of this work and the department was relieved of the burden. The Sanitary Inspectors' department has, nevertheless, worked under great difficulties during the year. Resignations and sickness were responsible for many of these, and at one time the number of inspectors on duty was reduced to two. Credit is due to these members of the staff for keeping the essential work of the department going, but it was obvious that much important work would have to go by default. It has, moreover, not yet been possible to fill the post of an additional inspector which was authorised in 1946. Sanitary inspectors are, in the current phrase, in short supply, with the result that applicants for posts tend to gravitate to those authorities offering the best conditions. It is unlikely that the present size of the inspectorate can be maintained, let alone increased, unless some further inducements are offered to attract applicants. In view of the important nature of the work and its bearing on the health and well-being of the population, it is hoped that this matter will receive sympathetic consideration.

Mr. Savage, who had served this authority for the past thirteen years, first as a District Inspector and then for the last seven as Senior Sanitary Inspector, resigned in June to take up an appointment with the Durham County Council, and his departure was a great loss to the department. He was succeeded by Mr. Raine who had been a District Inspector since 1934 and had thus acquired an extensive knowledge of the district and its problems.

Conclusion.

The foregoing constitutes a brief, and possibly incomplete, survey of the events of 1947 in so far as the work of the Health Department was concerned. Reviewing the account it is true to say that, on the whole, the health of the area was satisfactory.

With the exception of poliomyelitis already referred to, no major outbreaks of infectious disease occurred, and while in one or two cases the vital statistics were less favourable than might have been hoped, in no case need they cause undue alarm. A comparison with the figures for a few decades ago shows what has been accomplished, though it is obvious that much still remains to be done.

Finally I must again express to the Council my gratitude for their support and co-operation, and convey to the staff of the department my very sincere thanks for their help and service throughout the year.

I am, Mr. Chairman, Mrs. Winter and Gentlemen,

Your obedient servant,

E. F. DAWSON-WALKER,

Medical Officer of Health.

SECTION I.

CONDITIONS OF THE AREA

Area (in acres)	...	...	...	...	34,653
Registrar General's estimate of resident population, year 1947	...	...	...	...	79,800
Number of Inhabited Houses on 31st December 1947 according to the Rate Books	...	...	...	...	22,652
Rateable Value (at 1st April 1947)	...	...	...	...	£303,494
Sum represented by Penny Rate (1946-7)	...	...	...	...	£1,132

VITAL STATISTICS.

Births :—Live Births.

	Male	Female	Total		
Legitimate	901	806	1707		
Illegitimate	30	22	52		
	<hr/>	<hr/>	<hr/>		
	931	828	1759		
	<hr/>	<hr/>	<hr/>		
Birth Rate per 1,000 of the estimated resident					
population	22.04

Stillbirths—

Legitimate	22	20	42
Illegitimate	...	—	—
	<hr/> 22	<hr/> 20	<hr/> 42
Rate per 1,000 total births	...	...	23.87

Infantile Mortality—

Deaths of infants under 1 year :—

Legitimate	52	53	105
Illegitimate	3	3	6
	<hr/> 55	<hr/> 56	<hr/> 111

INFANTILE MORTALITY RATES.

Death rate of all infants under one year per 1,000 live births, 63.10.

Death rate of legitimate infants under one year per 1,000 legitimate live births, 61.51.

Death rate of illegitimate infants under one year per 1,000 illegitimate live births, 115.38.

	Male	Female	Total
DEATHS—	468	394	862
Death rate per 1,000 of the estimated resident population	..	..	10.80

MATERNAL DEATHS—

Deaths from Puerperal Causes—

from Sepsis	..	..	..	2
from Other Causes	..	..	..	1
Total	..	..	..	3

Maternal Mortality Rate 1.66

TABLE 1.

DEATHS—CAUSES AND AGES AT DEATH.

	All Ages	Under 1	1 to 2	3 to 5	6 to 15	16 to 25	26 to 45	46 to 65	66 to 75	76 up
Cerebro Spinal Fever ..	3	—	2	—	—	—	1	—	—	—
Scarlet Fever ..	2	—	—	—	—	1	1	—	—	—
Whooping Cough ..	3	1	2	—	—	—	—	—	—	—
Diphtheria ..	1	—	—	—	—	1	—	—	—	—
Tuberculosis Respiratory ..	33	1	—	—	—	17	10	5	—	—
Other Tuberculosis Diseases ..	15	3	2	2	4	1	2	1	—	—
Syphilitic Diseases ..	2	—	—	—	—	—	—	2	—	—
Influenza ..	6	4	—	—	—	—	1	—	—	1
Measles ..	3	—	1	1	—	—	1	—	—	—
Poliomyelitis ..	3	—	1	—	2	—	—	—	—	—
Encephalitis ..	1	—	—	—	—	—	—	1	—	—
Cancer ..	104	—	—	—	—	2	10	50	25	17
Diabetes ..	8	—	—	—	—	—	—	3	4	1
Intracranial Vascular Lesions ..	116	7	—	—	—	1	1	32	47	28
Heart Disease ..	216	—	—	—	—	—	11	61	71	73
Other Diseases of Circulatory System ..	32	—	—	—	—	—	—	3	14	15
Bronchitis ..	42	6	1	1	1	1	1	16	11	4
Pneumonia ..	37	10	2	2	—	1	3	7	8	4
Other Respiratory Diseases ..	12	—	—	—	—	2	3	2	3	2
Ulcer of Stomach & Duodenum ..	8	—	—	—	—	—	1	3	4	—
Diarrhoea (under 2 years) ..	15	14	1	—	—	—	—	—	—	—
Appendicitis ..	2	—	—	—	1	—	—	—	1	—
Other Digestive Diseases ..	9	—	—	—	—	—	—	4	1	—
Nephritis ..	14	—	—	—	—	3	3	4	2	—
Puerperal Sepsis ..	2	—	—	—	—	1	1	—	—	—
Other Maternal Causes ..	1	—	—	—	—	—	1	—	—	—
Premature Births ..	22	22	—	—	—	—	—	—	—	—
Con. malf., Birth inj., Infant dis. ..	39	36	—	3	—	—	—	—	—	—
Suicide ..	2	—	—	—	—	—	—	2	—	—
Road Traffic Accidents ..	8	—	1	3	1	—	—	1	1	1
Other Violent Causes ..	26	1	1	1	2	4	9	3	4	1
Other Deaths ..	75	3	1	1	—	4	9	14	15	28
Totals ..	862	108	15	14	11	39	69	214	211	181

TABLE 2.

Cancer

The following table gives the deaths from Cancer, in age groups, and the localisation of the disease.

			Ages in Years					Totals
			1 to 25	26 to 45	46 to 65	66 to 75	76 up	
Stomach	...	...	—	1	15	4	3	23
Breast	...	...	—	2	5	1	1	9
Prostate	...	...	—	1	2	3	—	6
Uterus	...	...	—	—	5	3	—	8
Liver	...	...	—	1	2	—	1	4
Lungs	...	...	—	—	8	2	—	10
Bowels	...	...	—	2	5	5	4	16
Other Causes	...		2	3	8	7	8	28
			2	10	50	25	17	104

TABLE 3.

Table of Birth and Death Rates for the Past 10 Years

Year	General Death Rate	Infantile Death Rate	Birth Rate
1938	11.5	62.3	20.0
1939	11.4	81.2	18.9
1940	11.2	62.5	18.7
1941	11.6	73.4	19.7
1942	10.8	58.0	19.8
1943	11.3	75.3	20.6
1944	10.6	59.7	22.2
1945	11.0	54.1	21.1
1946	10.1	53.1	21.9
1947	10.8	63.1	22.0

	General Death Rate	Infantile Death Rate	Birth Rate
1947			
England & Wales	12.0	41.0	20.5
Easington Rural District	10.8	63.1	22.0

TABLE 4.
Birth Rate, Death Rate and Analysis of Mortality during the Year, 1947.

	Rate per 1,000 Total population		Annual Death Rate per 1,000 Population							D'th Rate per 1,000 Live Births.		
	Live Births	Stillbirths	All Causes	Typhoid and Paratyphoid Fever	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Diarrhoea and Enteritis (under 2 years)	Total Deaths (under 1 year)
England and Wales	20.5	0.50	12.0	0.00	0.00	0.01	0.00	0.02	0.01	0.09	5.8	41
Easington Rural District	22.0	0.53	10.8	0.00	0.00	0.04	0.03	0.04	0.01	0.08	8.5	63

TABLE 5.
Infantile Mortality Rates
(10 years)

Year	Births	Easington R. D. Inf. Mortality Rate	England & Wales Inf. Mortality Rate
1938	1605	62.3	53
1939	1527	81.2	50
1940	1471	62.5	55
1941	1485	73.4	59
1942	1488	57.0	49
1943	1539	75.3	49
1944	1690	59.7	46
1945	1627	54.1	46
1946	1751	53.1	43
1947	1759	63.1	41

TABLE 6.
Death Rates (10 years)

Year	Deaths	Easington R. D. Death Rate	England & Wales Death Rate
1938	925	11.5	11.6
1939	924	11.4	12.1
1940	885	11.2	14.3
1941	884	11.6	12.9
1942	808	10.8	11.6
1943	850	11.3	12.1
1944	811	10.6	11.6
1945	848	11.0	11.4
1946	808	10.1	11.5
1947	862	10.8	12.0

TABLE 7.
Natural Increase of Population

Year	Births	Deaths	Rate of Natural Increase per 1,000 population.
1938	1605	925	8.4
1939	1527	924	7.5
1940	1471	885	7.4
1941	1485	884	7.8
1942	1488	808	8.4
1943	1539	850	9.2
1944	1690	811	11.5
1945	1627	848	10.1
1946	1751	808	11.8
1947	1759	862	11.2

SUMMARY OF STATISTICS 1947.

Population	..	..	..	..	79,800
Area (acres)	..	..	..	..	34,653
Estimated number of houses	..	..	..	..	22,652
Rateable Value (at 1st April, 1947)	..	..	..	..	£303,494
Sum produced by penny rate (1946-47)	..	..	..	..	£1,132
Births	..	..	..	..	1,759
Birth rate per 1,000 of the estimated resident population	..	..	..	..	22.04
Deaths	..	..	..	..	862
Death rate per 1,000 of the estimated resident population	..	..	..	..	10.80
Death rate of infants under one year of age	..	..	..	..	63.1

Chief Causes of Death.

Cause.	Number.	Percentage of total deaths.
Diseases of the heart	216	25.06
Diseases of the veins and arteries of the brain	116	13.46
Cancer	104	12.06
Bronchitis and pneumonia	79	9.16
Diseases of early infancy, and congenital malformations under 1 year	61	7.08
Tuberculosis (all forms)	48	5.57
Tuberculosis (pulmonary)	33	3.83

Infectious Diseases.

Disease.	Cases notified.	Number of deaths.	Death rate per 1,000 population.
Measles	502	3	0.04
Scarlet Fever	385	2	0.03
Diphtheria	105	1	0.01
Whooping Cough	96	3	0.04
Acute poliomyelitis	38	3	0.04
Acute polioencephalitis			
Erysipelas	24	—	
Cerebro-spinal fever	24	3	0.04
Enteric Fever	1	—	
Tuberculosis (all forms)	135	48	0.60
(new cases)			

Influenza, which is not notifiable, caused 6 deaths.

SECTION II.

TABLE 8.

INFECTIOUS DISEASES
NOTIFIED CASES, 1947.

Cases notified in whole district.											
DISEASE	At all ages	Under 1	1 to 2+	3 to 4+	5 to 9+	10 to 14+	15 to 24+	25 to 34+	35 to 44+	45 to 64+	65 and over
Scarlet Fever ..	385	3	26	45	157	100	38	10	5	1	—
Whooping Cough ..	96	17	20	34	25	—	—	—	—	—	—
Acute Poliomyelitis ..	37	1	13	3	11	3	4	2	—	—	—
Acute Polioencephalitis ..	1	1	—	—	—	—	—	—	—	—	—
Measles ..	502	34	120	138	199	9	2	—	—	—	—
Diphtheria ..	105	1	9	8	22	22	29	8	3	3	—
Acute Pneumonia ..	56	8	7	6	3	2	3	3	6	13	5
Enteric or Typhoid Fever ..	1	—	—	—	1	—	—	—	—	—	—
Paratyphoid Fevers ..	1	—	—	—	—	—	1	—	—	—	—
Erysipelas ..	24	—	—	—	1	1	1	3	3	10	5
Cerebro-spinal Fever ..	24	4	9	3	3	—	1	—	1	3	—
Puerperal Pyrexia ..	5	—	—	—	—	—	3	2	—	—	—
Ophthalmia Neonatorum ..	4	4	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ..	96	4	4	3	2	1	26	26	11	17	2
Non-Pulmonary Tuberculosis ..	39	3	4	2	10	10	5	2	2	1	—
TOTALS ..	1376	80	212	242	434	148	113	56	31	48	12

The following table shows the number of cases notified and deaths recorded from Diphtheria and Scarlet Fever during the past five years :—

TABLE 9.

Year	Diphtheria		Scarlet Fever	
	Notifications	Deaths	Notifications	Deaths
1943	184	11	202	1
1944	131	7	126	1
1945	118	2	122	Nil
1946	139	2	132	Nil
1947	105	1	385	2

TABLE 10.

OPHTHALMIA NEONATORUM

1947

CASES		
Notified	Treated	
	At Home	In Hospital
4	2	2

TABLE 11.
GEOGRAPHICAL DISTRIBUTION OF DIPHTHERIA SHOWN IN AGE GROUPS

DISTRICT	(1) Diphtheria Admissions to Thorpe Isolation Hospital during 1947.			(2) Of (1) number of children completely immunised prior to admission.			(3) Deaths from Diphtheria during 1947			(4) No Com- pletely Immun- ised child died from Diph- theria during 1947
	Ages in years			Ages in years			Ages in years			
	0—4	5—15	over 15	0—4	5—15	over 15	0—4	5—15	over 15	
BLACKHALL	1	2	4	—	—	—	—	—	—	
EASINGTON	3	11	13	—	7	—	—	—	—	
HASWELL	—	1	—	—	1	—	—	—	—	
HORDEN	4	8	7	4	1	—	—	—	—	
HESLEDEN	—	—	1	—	—	—	—	—	—	
MURTON	5	7	11	1	4	—	—	—	—	
SHOTTON	2	4	3	—	2	—	—	—	—	
SOUTH HETTON	—	3	1	—	2	—	—	—	—	
THORNLEY	2	5	1	—	1	—	—	—	—	
WHEATLEY HILL	—	3	2	—	3	—	—	—	—	
WINGATE	1	—	—	1	—	—	—	—	—	
Totals	18	44	43	6	21	—	—	—	—	

TABLE 12.

CASES OF DIPHTHERIA NOTIFIED EACH MONTH DURING 1947

Locality	Jan.	Feb.	Mar.	April	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Blackhall	—	—	1	—	2	2	—	—	—	1	—	1	7
Easington	1	1	1	5	3	—	1	3	3	4	4	2	28
Haswell	—	—	—	—	—	—	—	—	—	—	—	1	1
Horden	2	1	—	2	2	2	2	—	1	1	2	4	19
Murton	3	—	3	1	5	1	2	4	1	2	1	—	23
Shotton	—	—	1	—	1	1	—	1	4	—	—	1	9
South Hetton	—	—	—	—	—	1	—	1	—	—	2	—	4
Thornley	6	—	—	—	—	—	—	—	—	—	1	—	8
Wheatley Hill	—	—	—	1	—	—	—	1	1	2	1	—	5
Wingate	—	—	—	—	—	1	—	—	—	—	—	—	1
Totals	12	2	6	9	13	8	5	10	10	10	11	9	105

INFECTIOUS DISEASES.

The main points of interest in the foregoing tables can be briefly summarized as follows :—

The number of scarlet fever notifications which had remained very constant over the previous three years showed a marked increase. There were 385 notified cases of this disease in 1947 as compared with 132 in 1946 and 122 in 1945.

This increase occurred in three main waves falling in the months of March and April, June and July, and October respectively.

There was a slight fall in the diphtheria notifications which numbered 105 as contrasted with 139 in 1946 and 118 in 1945.

The number of cases of measles again showed a decrease, 502 being notified as against 892 in 1946 and 1313 in 1945. The incidence of this disease was heaviest during the first quarter of the year.

Cases of erysipelas numbered 24, an increase of 10 on the figure for last year.

The number of cases notified as suffering from cerebro-spinal meningitis was 24 as opposed to 28 in 1946 and 21 in 1945. As the notifications of this disease are in many cases tentative the figure of 10 proved cases admitted to Thorpe Hospital gives a truer indication of incidence of this disease in the district during the year under review. Seven proved cases were admitted to hospital in 1946.

Thirty-seven cases of acute anterior poliomyelitis and one of polioencephalitis were notified, all during the last six months of the year.

There were five cases of puerperal pyrexia as contrasted with six in 1946 and 12 in 1945.

Notifications of pulmonary tuberculosis numbered 96, an increase of 14 on the figure for 1946 and 38 more than that for 1945.

SECTION III.

THORPE HOSPITAL.

The admissions to the hospital during the year numbered 435, as contrasted with 366 in 1946 and 308 in 1945. Of these cases 92 were from the Seaham Urban District authority.

The distribution of these cases under their corrected diagnoses and according to their month of admission is shown in table 13, which also shows the number of deaths due to the different diseases.

Table 14 sets out the final diagnoses under the same classifications, while table 15 indicates the place of origin of the cases under the headings of the different parishes.

SCARLET FEVER.

One hundred and forty seven cases of scarlet fever were admitted during the year, an increase of 55 over the figure for 1946. Of these admissions 113 were from the Easington area and 34 from the Seaham area. The total number of notifications in the Easington area was 385, and the proportion of notified cases of this disease admitted to hospital was 30%, a decrease of 14% on the corresponding figure for 1946.

The sharp increase in the incidence of this disease which occurred in the early months of 1947 and the tendency for practitioners to request the admission of practically every case, however mild, threatened to swamp the available accommodation at the hospital. A circular letter was therefore sent to all local practitioners, couched in strong terms and quoting extracts from the recent annual reports of the Chief Medical Officer of the Ministry of Health in support of the policy, stating that admission to hospital must be restricted to cases who were either so ill as to need skilled nursing, or for whom no reasonable modified isolation could be arranged at home, and to certain other special categories. As a result of this letter the demand for the admission of cases of scarlet fever from the Easington area fell considerably and the available accommodation and staff proved quite adequate, while disadvantages of overcrowding were avoided and the incidence of complications remained low.

Scarlet fever antitoxin was used in the treatment of all except the mildest cases.

There was one death from the disease during the year, a man, admitted on the tenth day of his illness after being nursed

at home, where he was a "squatter," who developed an acute septicaemic condition with multiple suppurative arthritis.

DIPHTHERIA.

There was a further decline in the number of proved cases of diphtheria admitted, which numbered 49 as contrasted with 83 in 1946 and 103 in 1945. Of these 49 cases 14 were from the Seaham Urban District. The various types of diphtheria are shown in the following table.

Types	Cases	Deaths
Nasopharyngeal ..	8	—
Faucial	39	—
Laryngeal	1	—
Others	1	—
Total	49	—

There were no fatal cases of this disease during the year and, as far as the available records show, this is the first time that a case mortality rate of nil for diphtheria has been recorded. The following Table indicates the incidence of the various types in age groups :—

	0—1	1—2	2—5	5—10	10—15	15—25	25—45	over 45	Total
Nasopharyn- geal ..	—	—	—	7	1	—	—	—	8
Faucial ..	—	—	12	11	10	4	2	—	39
Laryngeal ..	—	1	—	—	—	—	—	—	1
Others ..	—	—	—	—	—	—	1	—	1
Total ..	—	1	12	18	11	4	3	—	49

In eight cases where virulent organisms persisted in the throat after recovery from the disease tonsillectomy was performed. In all cases this procedure rendered the patient free from infection after a short period.

One diphtheria carrier was admitted during the year.

TABLE 13

THORPE ISOLATION HOSPITAL Admissions and Deaths, 1947.

DISEASE	ADMISSIONS													DEATHS												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Scarlet Fever	18	14	27	14	6	12	10	4	8	18	9	7	147	1	—	—	—	—	—	—	—	—	—	—	—	1
Diphtheria	9	1	—	3	4	2	3	5	9	4	7	2	49	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria Carrier	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Group of Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	4	1	—	—	1	—	—	—	—	2	8	—	—	1	—	—	—	—	—	—	—	—	—	1
Rubella	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Pertussis	—	—	—	—	—	—	—	—	2	2	—	1	5	—	—	—	—	—	—	—	—	1	—	—	—	1
Epidemic Cerebro-Spinal Meningitis ..	1	—	1	1	2	1	1	1	1	1	—	—	10	1	—	—	—	—	1	—	—	1	—	—	—	3
Other forms of Meningitis	—	—	—	1	1	—	1	—	—	1	—	1	5	—	—	—	1	1	—	—	—	—	—	1	—	3
Poliomyelitis	—	—	—	—	—	—	1	13	5	2	1	1	23	—	—	—	—	—	—	—	2	—	—	—	—	2
Polioencephalitis	—	—	—	—	—	—	—	1	2	—	—	—	3	—	—	—	—	—	—	—	1	—	—	—	—	2
Pneumonia	1	—	—	—	3	—	—	—	—	3	—	1	8	—	—	—	—	—	—	—	1	—	1	—	—	1
Bronchitis	—	—	2	1	—	—	—	1	1	—	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Respiratory Diseases	—	—	1	—	—	—	—	3	—	1	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	1	—	—	1	1	—	—	—	1	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—
Skin and Septic Conditions	1	—	—	—	1	3	3	—	—	—	—	—	8	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia	—	—	1	1	—	1	—	—	1	1	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Tonsillitis	4	3	6	7	8	11	7	11	6	3	8	10	84	—	—	—	—	—	—	—	—	—	—	—	—	—
Gastro-intestinal Diseases	2	1	1	1	1	2	1	3	1	4	2	6	25	—	—	—	—	—	1	1	—	—	—	—	1	3
Vincent's Angina	—	1	1	—	2	—	—	—	—	3	2	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken Pox	—	—	—	—	—	1	1	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Infectious Diseases	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
General Diseases	1	—	—	2	1	—	—	1	—	—	2	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—
Injuries	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified	2	—	1	1	—	1	2	1	1	3	2	—	14	—	—	—	—	—	—	1	—	—	—	—	—	1
Totals	41	20	46	34	30	34	31	45	39	46	35	34	435	2	—	1	1	1	2	1	4	1	3	—	2	18

TABLE 14

THORPE ISOLATION HOSPITAL

Diseases Admitted—1947.

PROVED TO BE:																												
SENT IN AS :—		Number	Scarlet Fever	Diphtheria	Diphtheria Carrier	Enteric Group of Fevers	Dysentery	Measles	Rubella	Pertussis	Epidemic Cerebro-Spinal Meningitis	Other Forms of Meningiti	Poliomyelitis	Polio-Encephalitis	Pneumonia	Bronchitis	Other Respiratory Diseases	Erysipelas	Skin and Septic Conditions	Puerperal Pyrexia	Tonsillitis	Gastro-Intestinal Diseases	Vincent's Angina	Chicken Pox	Other Infectious Diseases	General Diseases	Injuries	Unclassified
Scarlet Fever		153	145	—	—	—	—	1	1	—	—	—	—	—	1	—	1	—	3	—	1	—	—	—	—	—	—	—
Diphtheria		140	2	48	1	—	—	—	—	—	—	—	—	—	—	2	1	—	1	—	74	1	9	—	—	1	—	—
Dphtheria Carrier		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Group of Fevers		4	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	3	—	—	—	—	—	—
Dysentery		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles		8	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Rubella		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pertussis		4	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epidemic Cerebro-Spinal Meningitis		27	—	—	—	—	—	—	—	—	10	4	2	—	2	—	—	—	—	—	—	4	—	1	—	2	—	2
Other forms of Meningitis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis		41	—	1	—	—	1	—	—	—	—	—	21	2	—	2	3	—	—	—	3	—	—	—	—	2	1	5
Polioencephalitis		2	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia		5	—	—	—	—	—	—	—	—	—	—	—	—	2	2	1	—	—	—	—	—	—	—	—	—	—	—
Bronchitis		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Respiratory Diseases		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas		5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	1	—	—
Skin and Septic Conditions		4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—
Puerperal Pyrexia		6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—
Tonsillitis		6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—
Gastro-Intestinal Diseases		20	—	—	—	—	—	—	—	1	—	—	—	—	2	—	—	—	—	—	—	17	—	—	—	—	—	—
Vincent's Angina		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken Pox		2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Other Infectious Diseases		1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
General Diseases		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Injuries		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified		7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
TOTALS		435	147	49	1	—	1	8	1	5	10	5	23	3	8	6	6	4	8	6	84	25	9	3	1	7	1	14

TABLE 15

THORPE ISOLATION HOSPITAL Admissions under Parishes.

DISEASE.	Blackhall	Burdon	Castle Eden	Easington	Haswell	Hesleden	Horden	Hutton Henry	Murton	Shotton	South Hetton	Station Town	Thornley	Trimdon Station	Wheatley Hill	Wingate		Durham R.D.C. Ludworth	Seaham		TOTALS
Scarlet Fever	12	1	—	23	2	2	38	—	2	4	15	1	7	—	1	5		—	34		147
Diphtheria	2	—	—	10	—	—	5	—	6	3	—	—	6	—	3	—		—	14		49
Diphtheria Carrier	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—		—	—		1
Enteric Group of Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—		—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	1		1
Measles	—	—	—	1	—	—	5	—	—	—	—	—	1	1	—	—		—	—		8
Rubella	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	1		1
Pertussis	1	—	—	—	—	—	1	—	—	1	—	—	—	—	—	2		—	—		5
Epidemic Cerebro-spinal Meningitis	—	—	—	2	—	—	5	—	1	—	—	—	1	—	—	—		—	1		10
Other forms of Meningitis	—	—	—	3	—	—	1	—	—	—	—	—	—	—	—	—		—	1		5
Poliomyelitis	1	—	—	4	2	1	3	—	5	—	1	—	1	1	2	—		—	2		23
Polioencephalitis	—	—	—	—	1	—	1	—	—	1	—	—	—	—	—	—		—	—		3
Pneumonia	—	—	—	1	—	—	3	—	1	—	—	—	1	—	—	1		—	1		8
Bronchitis	1	—	—	—	—	—	2	—	2	—	—	—	—	—	1	—		—	—		6
Other Respiratory Diseases	—	—	—	—	1	—	1	—	1	—	1	—	—	—	—	—		—	1		6
Erysipelas	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—		—	2		4
Skin and Septic Conditions	1	—	—	2	—	—	1	—	—	—	—	—	—	—	—	2		—	2		8
Puerperal Pyrexia	1	—	—	—	—	1	—	—	3	—	—	—	—	—	—	—		—	1		6
Tonsillitis	6	—	—	15	1	1	16	—	15	4	5	—	1	1	1	1		—	17		84
Gastro-intestinal Diseases	1	—	—	4	1	—	7	—	1	3	1	—	1	—	—	—		—	6		25
Vincent's Angina	—	—	—	3	—	—	—	—	—	2	—	—	—	—	1	—		—	3		9
Chicken Pox	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—		—	1		3
Other Infectious Diseases	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—		—	—		1
General Diseases	—	—	—	2	—	—	—	—	1	—	—	—	—	—	1	—		—	3		7
Injuries	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—		—	—		1
Unclassified	1	—	—	1	—	1	2	—	1	4	2	—	—	—	—	—		1	1		14
TOTALS	28	1	—	73	8	6	92	—	40	24	25	1	20	3	10	11		1	92		435

MENINGOCOCCAL MENINGITIS.

Ten proved cases of this disease were admitted during the year, three of which proved fatal. The age and sex distribution of these cases is set out in the following table :—

Ages	0-1	1-2	2-5	5-15	15-25	25-45	45 up	Total
Males	—	2(2)	1	2	—	1(1)	—	6(3)
Females	—	1	1	—	—	—	2	4
Total	—	3(2)	2	2	—	1(1)	2	10(3)

Figures in parenthesis indicate deaths.

The three fatal cases were all very ill on admission and died within 24 hours. The adult was comatose on admission but at first responded well to treatment to the extent of regaining consciousness. He later collapsed suddenly and died.

ENTERIC FEVER.

No proved case of this disease was admitted during the year.

DYSENTERY.

One case of dysentery of the Flexner type was admitted during the year.

FOOD POISONING.

One case of illness due to infection with an organism of the food poisoning group was admitted during the year.

The provisional diagnosis made before admission was paratyphoid fever but the clinical appearances were more suggestive of dysentery. An organism was isolated from the stools which at first was difficult to identify but which eventually proved to be *B. Aertrycke*.

POLIOMYELITIS.

In the month of July proved and suspected cases of poliomyelitis began to be admitted in some numbers.

Forty-one suspected cases were admitted, in 21 of which the diagnosis was subsequently confirmed. In two cases the diagnosis was changed to that of polioencephalitis and two cases sent in as suspected cerebro-spinal meningitis turned out on investigation to be poliomyelitis.

In addition to the foregoing two cases were admitted with a diagnosis of polioencephalitis. In one of them the diagnosis was confirmed, but the other proved to be a case of poliomyelitis.

In all twenty-three proved cases of poliomyelitis were admitted during the year, two of which proved fatal, together with three proved cases of polioencephalitis, two of which also ended fatally.

Two tables are attached : table 16 shows the age and sex distribution of these cases, while table 17 which is a modified copy of a return made to the Ministry of Health gives further details of the cases, dealing with the diagnosis and treatment of the disease. A list is also given of the corrected diagnosis in the suspected cases where the original diagnosis was not confirmed.

The film which was made under the auspices of the Ministry of Health was shown to the staff of the hospital during the autumn, together with one or two other films dealing with public health matters. The films were shown by the Central Office of Information and an invitation was extended to medical practitioners, health visitors and training nurses in the area.

GASTRO-ENTERITIS.

Eighteen cases of gastro-enteritis in infants under one year of age were admitted during the year. Three of these cases died, two within 24 hours of admission.

NURSING STAFF.

During the year steps were taken to implement the recommendations made in the report on the nursing staff which was set out *in extenso* as an appendix in the last annual report.

In March two ward sisters were appointed and the number of fever trained staff nurses was increased to six.

Courses of lectures on elementary nursing have been given during the year.

MALE STAFF.

In order to improve the standard of maintenance of the grounds an apprentice gardener was appointed in January to assist the gardener.

In December it was decided to appoint a night watchman with a view to overcoming certain difficulties arising in connection with the admittance of members of the staff returning late at night, and also with a view to maintaining a higher temperature in the wards during the night hours in the winter. It was also felt that the somewhat lonely and isolated situation of the hospital justified such an appointment.

STRUCTURE AND FURNISHINGS.

A commencement was made with the erection of four huts to provide improved accommodation for staff on the lines indicated in the report previously referred to. These were obtained from the Disposals Board and are by no means ideal for the purpose for which they are intended. It would appear, however, that there is no likelihood of any building being undertaken for some years to come, and in the circumstances their erection has been proceeded with.

The administrative block and one ward together with the laundry and garage were painted during the year.

LABORATORY WORK.

Under the arrangement with the County Council the majority of specimens were sent to the Joint Committee's Public Health Laboratory at King's College, Newcastle, but the small laboratory established at the hospital was frequently used for the examination of urgent specimens.

TABLE 16

POLIOMYELITIS AND POLIOENCEPHALITIS

PROVED CASES, 1947

MALE							FEMALE							TOTAL
AGE GROUPS							AGE GROUPS							
0—	1—	5—	15—	25—	35—	45	0—	1—	5—	15—	25—	35—	45	
2(1)	5*	5(1)	2	1(1)	1	—	—	5(1)	3	1	—	—	1*	26(4)

*One notified as Cerebro-spinal Meningitis.

*Notified as Cerebro-spinal Meningitis.

Figures in parenthesis indicate deaths.

TABLE 17

POLIOMYELITIS AND POLIOENCEPHALITIS

CASES ADMITTED TO THORPE ISOLATION HOSPITAL DURING THE YEAR 1947 WITH
A PROVISIONAL DIAGNOSIS OF :—(a) POLIOMYELITIS 41 : (b) POLIOENCEPHALITIS 2.

TYPE					MALES—AGE GROUPS							FEMALES—AGE GROUPS							TOTALS
					0—	1—	5—	15—	25—	35—	45+	0—	1—	5—	15—	25—	35—	45+	
A.	I. PARALYTIC	(a)	Limbs and/or Trunk	i Slight ..	1				1			2	2	1			7		
				ii Moderate ..	1					1	1					3			
				iii Severe ..	1	1		1		1						4			
	(b)	Other	i Slight ..							1						1			
			ii Moderate ..																
			iii Severe ..																
	2.	NON-PARALYTIC	(a)	With changes in C.S.F. ..			2									2			
				(b) With clinical signs only ..		2	1	1								4			
	3.	PRESUMPTIVE					2	1									3		
	4.	NOT POLIOMYELITIS OR POLIOENCEPHALITIS				6	3	2	1			3	4				19		
TOTALS					2	10	8	4	2	1		8	7	1			43		
B. FATAL CASES OF POLIOMYELITIS AND POLIOENCEPHALITIS																			
I.	PARALYTIC	(a)	Limbs and/or Trunk								1					1			
			(b) Other	I			1								2				
2.	NON-PARALYTIC					1										1			
TOTALS (included in A.)					1		1		1			1				4			
C. TREATED IN RESPIRATOR.																			
I.	TEMPORARILY										1					1			
TOTALS (included in A.)											1					1			

**Corrected Diagnoses of Cases Admitted to Hospital with Original
Diagnosis of Poliomyelitis or Polioencephalitis.**

Pyrexia	..	..	..	1
Coryza	..	..	..	2
Flexner Dysentery	..	..	..	1
Tonsillitis	..	..	..	3
Tonsillar Diphtheria	..	..	..	1
Rheumatism	..	..	..	2
Bronchitis	..	..	..	2
? Spontaneous Pneumothorax	..	..	..	1
Injury to the Arm	..	..	..	1
N.I.D.—with Erythema Circinate	..	..	..	1
Synovitis of Knee	..	..	..	1
Phlebitis	..	..	..	1
Adenitis	..	..	..	1
Suppurative Meningitis	..	..	..	1
Total				19

SECTION IV.

DIPHTHERIA IMMUNISATION.

ADMINISTRATION.

The Council's diphtheria immunisation scheme, which provides free immunisation against diphtheria up to the age of 15 years, has continued to operate during the year. The administrative arrangements now in force were set out in some detail in the annual report for 1946 and these have worked satisfactorily.

PROPAGANDA.

Propaganda has largely been confined to newspaper advertisements in the local press. It was felt that the press and poster advertisements of the Ministry of Health and the Health and Cleanliness Council cover the area fairly satisfactorily, while the best channels for personal propaganda, such as schools, welfare centres and the health visitors are under the control of the County Council.

STATISTICS.

The statistics regarding the year's work are set out below in the form suggested by the Ministry of Health in the Monthly Bulletin for September, 1944.

It will be seen that of the child population under five years of age 42.47% have been immunised, and of those between the ages of five and fourteen years inclusive 70.23% have been immunised. The percentage of children of fifteen years and under who have been immunised is 60.32.

Total population of children under 15 years of age in Easington Rural District estimated as living at mid-year ..	21290
Immunised children at risk one year :—	
Number immunised before January 1st, 1947	14010
Number immunised :—	
January 1st to June 30th ..	456
Three-quarters thereof	342
July 1st to December 31st ..	549
One-quarter thereof	137
Total child years at risk for immunised	14489
Non-immunised children : total child-years at risk (difference 21,290-14,489) ..	6801

Table 18 shows the total number of children in the district who have been immunised since the commencement of the scheme in 1942, and table 19 the number of children finally diagnosed as suffering from diphtheria during the year and the number of deaths, divided into those who had been immunised and those who had not, and into age groups 0—1, 1—5, 5—10, 10—15 years.

The distribution as between practitioners and welfare centres of the under 5 group who were fully immunised in 1947 is as follows :—

Under 5 years.

Practitioners	476
Welfare Centres	422

The numbers of reinforcing doses given during the year and the distribution as between the two schemes is shown below :—

	January to June	July to December	1947
Practitioners	45	71	116
Welfare Centres	13	13	26
Total	58	84	142

TABLE 18.

Table of Diphtheria Inoculations

Age at date of inoculation	1942	1943	1944	1945	1946	1947	Ratio of inoculated to total population at the end of 1947.
Under 1 year	18	84	110	26	28	47	Total under 5 years of age 3228, being 42.47% of the population of this age.
1+	440	393	571	495	493	569	
2+	306	154	331	93	347	212	
3+	442	183	211	33	83	51	
4+	489	189	220	34	44	19	
5+	495	132	167	43	32	31	Total 5-14 years of age 9615, being 70.23% of the population of this age.
6+	497	361	152	46	22	18	
7+	514	270	142	49	18	10	
8+	900	323	174	27	22	12	
9+	768	132	165	16	13	11	
10+	769	123	167	19	20	10	
11+	226	172	152	31	10	4	
12+	98	298	123	7	9	3	
13+	43	126	89	—	3	4	
14+	9	97	38	23	1	4	
15+	—	55	4	1	1	—	
Total	6014	3092	2816	943	1146	1005	

TABLE 19.

Age at date of Notification	Number of cases diagnosed as suffering from diphtheria	Number of cases included in preceding column in which the child had completed a full course of immunisation	Age at date of death	No. of Deaths	Number of cases included in preceding column in which the child had completed a full course of immunisation
0 — 1	—	—	0 — 1	—	—
1 — 5	9	3	1 — 5	—	—
5 — 10	14	6	5 — 10	—	—
10—15	9	5	10—15	—	—
	32	14		—	—

SECTION V.

TUBERCULOSIS

TABLE 20.

Number of Cases on Register at 31st December, 1947.

PULMONARY.			NON-PULMONARY.			TOTAL CASES
Male	Female	Total	Male	Female	Total	
234	189	423	189	175	364	787

TABLE 21.
New Cases and Mortality, 1947.

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 1	2	2	2	1	1	—	2	1
1 to 2 +	3	1	3	1	—	—	2	—
3 to 4 +	3	—	1	1	—	—	—	2
5 to 9 +	—	2	3	7	—	—	1	1
10 to 14 +	1	—	6	4	—	—	1	1
15 to 24 +	13	13	3	2	5	11	—	1
25 to 34 +	13	13	1	1	2	5	1	—
35 to 44 +	6	5	1	1	1	3	1	—
45 to 64 +	17	—	1	—	4	1	1	—
65 and upwards	1	1	—	—	—	—	—	—
	59	37	21	18	13	20	9	6

BACTERIOLOGICAL EXAMINATIONS DURING 1947.

Phthisis	Total	Positive	Negative
	395	43	352

TABLE 22.

COMPARATIVE TUBERCULOSIS STATISTICS FOR RECENT YEARS.

YEAR	NEW CASES						DEATHS						No. ON REGISTER AT END OF YEAR					
	Pulmonary			Non-Pulmonary			Pulmonary			Non-Pulmonary			Pulmonary			Non-Pulmonary		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1938	26	22	48	25	35	60	27	24	51	4	8	12	98	82	180	129	132	261
1939	42	24	66	40	34	74	18	17	35	10	2	12	118	74	192	154	148	302
1940	33	17	50	19	34	53	27	16	43	4	3	7	123	74	197	154	169	323
1941	24	22	46	28	29	57	21	13	34	6	2	8	126	86	212	172	185	357
1942	38	35	73	41	36	77	18	10	28	6	3	9	147	113	260	202	217	419
1943	29	30	59	18	28	46	20	17	37	8	4	12	167	140	307	208	228	436
1944	32	37	69	22	29	51	13	10	23	5	7	12	183	165	348	211	233	444
1945	29	29	58	26	27	53	17	18	35	5	4	9	189	174	363	206	218	424
1946	47	35	82	21	19	40	18	6	24	7	3	10	207	189	396	185	186	371
1947	59	37	96	21	18	39	13	20	33	9	6	15	234	189	423	189	175	364

TABLE 23.

Deaths from Pulmonary Tuberculosis between the ages of 15 and 25 years, during the past 10 years.

Year	Male	Female	Total	Percentage of Total Pulmonary Deaths
1938	8	9	17	33%
1939	1	4	5	17%
1940	7	6	13	30%
1941	5	4	9	27%
1942	6	9	15	54%
1943	9	7	16	43%
1944	1	4	5	21%
1945	3	8	11	31%
1946	3	3	6	25%
1947	5	11	16	48%

TABLE 24.

The following Table shows the number of deaths from Tuberculosis (all ages) during the past five years—the figures in parenthesis indicating deaths occurring in previously notified cases of Tuberculosis.

YEAR	PULMONARY			NON-PULMONARY		
	Male	Female	Total	Male	Female	Total
1943	20 (18)	17 (9)	37 (27)	8 (2)	4 (2)	12 (4)
1944	13 (9)	10 (7)	23 (16)	5 (—)	7 (1)	12 (1)
1945	17 (13)	18 (13)	35 (26)	5 (3)	4 (3)	9 (6)
1946	18 (16)	6 (6)	24 (22)	7 (4)	3 (2)	10 (6)
1947	13 (9)	20 (20)	33 (29)	9 (7)	6 (5)	15 (12)
Total	81 (65)	71 (55)	152 (120)	34 (16)	24 (13)	58 (29)

TUBERCULOSIS.

The main points of interest in the foregoing tables can be summarized as follows :—

96 new cases of the pulmonary form of the disease were notified during the year, 59 of whom were males and 37 females. This was an increase of 14 upon the figure for 1946 which was 82, made up of 47 males and 35 females.

New notifications of the non-pulmonary form of the disease numbered 39 a decrease of 1 from the number for 1946.

The deaths from the pulmonary form of the disease showed an increase from 24 in 1946 to 33, while in the non-pulmonary form the number of deaths was 15, as against 10 in 1946.

The number of new cases among females in the 15 to 35 age group formed 52.7% of all new female cases.

The mortality rate for the district for the respiratory form of the disease in 1947 was 0.413 per thousand of the population, which is a fraction less than the figure of 0.470 per thousand for England and Wales as a whole. On the other hand the mortality rate for the district in the non-pulmonary type of the disease, which was 0.187 per thousand, compares unfavourably with the national rate for 1947 of 0.079 per thousand.

SECTION VI.

SCABIES.

The clinic for the treatment of this disease has been in operation at Horden throughout the year. The building used was formerly a gas cleansing station and is far from ideal for the purpose, but shortage of labour and material have prevented the carrying out of any adaptations or improvements.

The Medical Officer of Health attends weekly to examine women and children referred to the Clinic by School and Child Welfare Medical Officers and by General Practitioners. The treatment is carried out by a staff consisting of one trained nurse and two helpers. During 1947 adult male cases were examined by their own doctors and treated at the clinic by a staff recruited from local ambulance workers.

The staff have carried out good work with the limited facilities available. The fares of all patients attending the clinic are refunded.

Statistics of the work carried out under the scheme during the year are as follows :—

No. of patients attending for examination	96	(239)
No. of patients attending found to be suffering from scabies	.. .. .	79 (196)
No. of patients treated for scabies and cleared of the disease	.. .. .	88 (159)

The corresponding figures for 1946 are given in brackets.

SECTION VII.

SANITARY CIRCUMSTANCES OF THE AREA.

REPORT OF THE SENIOR SANITARY INSPECTOR.

To the Medical Officer of Health.

Sir,

I have pleasure in submitting a report of the work carried out by the Inspectors during the year 1947, the latter part of which became increasingly difficult as regards working conditions for the remaining members of the staff as the result of the resignation of Mr. Savage, Senior Inspector at the time, on his appointment to a County post and the absence due to ill health of Mr. Raine, deputy senior and myself.

That the department continued to function during these latter months with any degree of success whatever is a tribute to the industry of Mr. J. R. Day and particularly in view of the greater responsibility so suddenly thrust upon him of Mr. R. E. V. Warrand. An appointment, which proved of very short duration, was made during the year when Mr. W. Ranson joined the staff from Sunderland Borough and in a matter of months resigned to take up a new post in Yorkshire.

WATER SUPPLY :

The water undertakings supplying the district are :—

- Sunderland and South Shields Water Company.
- Horden Collieries Limited.
- Wingate and District Water Company.
- Wheatley Hill Colliery.
- Easington Rural District Council.

The water supply, which is of a high standard of purity, has been satisfactory in quality but barely adequate on occasions in quantity to meet the needs of the District.

Four samples of water were sent for chemical analysis to the County Analyst and the results of all were satisfactory. 38 samples of public mains supplies and 4 samples of well water were taken and forwarded for bacteriological examination to King's College and later the Public Health Laboratory, Newcastle. The well samples proved to be unsatisfactory but all public supplies were of a high degree of bacterial purity.

A typical chemical analysis and bacteriological examination is as follows :—

CHEMICAL ANALYSIS				PARTS PER 100,000
Total Solids	..	..	..	50.2
Chlorine as Chlorides	..	..	..	5.06
Chlorine expressed as Sodium Chloride	..	..	..	8.35
Nitrogen as Nitrates	..	..	..	0.18
Nitrogen as Nitrites	..	..	..	Nil.
Free Ammonia	..	..	..	Nil.
Albuminoid Ammonia	..	..	..	0.0020
Alkalinity	..	..	..	29.10
Total Hardness (Degrees)	..	..	..	27.9
Colour (Hazen degrees)	..	..	..	less than 5
Suspended matter	..	..	..	Nil.
Iron	..	..	..	Nil.

BACTERIOLOGICAL EXAMINATION.

Organisms visible on agar after
48 hours incubation at 87 °C. ..

3 per ml.

Coliform Organism	1 ml.	10 ml.	100 ml.
	Nil.	Nil.	Nil.

With regard to the plumbo-solvent action, no evidence has ever been found that this is present in any water used in this district, probably owing to the fact that all the water without exception, is from magnesium limestone and has a permanent and temporary hardness of 25—30°.

Particulars of the number of dwelling houses and the number of the population supplied from public water mains (a) direct to houses (b) by means of standpipes, are given in the following table.

LOCALITY	1	2	3	4	5	6
	Estimated population	Area in acres	Number of houses	No. of Houses with mains supply direct to houses	No. of Houses with mains supply from stand pipes	No. of Houses without mains supply
Burdon ..	112	1286	33			
Seaton with Slingley ..	334	1392	140	182	—	—
Varden Law ..	68	500	19			
Castle Eden ..	418	1542	155	155	—	—
Cold Hesledon ..	1319	1030	303			
Dalton-le-Dale ..	402	811	253	459	97	—
Easington with Thorpe	12008	3716	3050	3038	5	7
Haswell	3047		775			—
South Hetton ..	3705	3766	984	1544	213	2
Hutton Henry ..	607		175			
Station Town ..	2629	2016	691	750	113	3
Hawthorn ..	267	1414	145	143	—	2
Blackhall ..	5899		2023			
Hesledens ..	1452	2654	502	2420	85	—
Murton East ..	9416	1406	2743	2176	567	—
Sheraton with Hulam	148	2346	50	—	—	50
Nesbit	8	333	4	4	—	—
Shotton	6475	2270	1958		—	1
Horden	13229	2453	3818	5775	—	—
Thornley ..	4615	1148	1341	1317	24	—
Wingate	4571		1298			7
Wheatley Hill ..	7073	4570	1768	3642	16	—
Trimdon ..	1998		609			—
TOTALS ..	79800	34653	22937	21611	1120	72

PUBLIC CLEANSING.

(Contributed by the Cleansing Superintendent).

The collection and disposal of refuse, etc., is carried out by the Cleansing Department for the whole of the rural area, which service has been in operation as a central department since October, 1932.

During the year 1947, the refuse vehicles used for cleansing work generally in the rural area are five Morris Refuse Collectors, four S. & D. Freighters and two Karrier Bantams, which are engaged full time; in addition there are nineteen horsedrawn vehicles. All vehicles for cleansing are provided with iron sliding covers which are not only a protection against the spilling of the refuse, but are also a prevention against any dust nuisance.

It is the intention of the Council that the collection of all refuse will be carried out by motor refuse collectors as and when such vehicles can be purchased.

The disposal of all refuse (except a small quantity supplied to farmers and allotments) is semi-controlled, this being done in layers as far as possible which is an additional precaution against fire occurring.

Since the end of April, 1940 to date, the Cleansing Department has been responsible for the salvage of paper, metals, rags and bones, etc., and records prove that by the amounts disposed of the collection of salvage has been successful. The work of salvage is still being carried out except that apart from paper the quantities of metals, rags and bones are nearly negligible.

The following table shows the principle nuisances dealt with :—

PUBLIC HEALTH ACTS.

Nature of Nuisance	No. of Visits	Notices Served		Nuisances Abated
		Informal	Formal	
Foul Conditions	64	10	1	7
Structural Defects	669	94	6	77
Ashpits & Privies	23	14	—	—
Deposits of Refuse and Manure	53	6	—	4
Waterclosets	87	29	—	22
Defective Yard Paving	14	5	—	2
House Drainage—				
Defective Traps	34	7	—	4
Other Faults	89	19	—	14
Water Supply (Defective Fittings)	17	9	—	7
Animals improperly kept	19	9	—	6
Smoke Nuisances	12	1	—	1
Other Nuisances	25	7	—	4
Rat Infested Premises	34	—	—	34
Dustbins	74	40	13	32
Public Halls & Cinemas	96	8	—	6
Licensed Premises	71	5	—	5
Verminous Premises—				
Council Houses	40	1	—	1
Private Houses	12	—	—	—
Infectious Diseases				
Enquiries	872	—	—	—
Infectious Diseases				
Disinfections	606	—	—	—
Tents, Vans & Sheds	56	1	—	—
	2967	265	20	226

CLOSET ACCOMMODATION.

The number of sanitary conveniences in the district are as follows :—

Water Closets	24,097
Ash Closets	137
Privy Middens	103
Pan Closets	74

There were no conversions to water closets during the year.

SMOKE ABATEMENT.

A few complaints of smoke nuisance were received during the year from residents near the Wellfield Pasteurisation Plant. The trouble is invariably due to the use of coal instead of coke in order to maintain a sufficient head of steam and will not be entirely overcome until a plant adequate to deal with the volume of work required is forthcoming.

The position in regard to Colliery spoilbanks remains generally unchanged. Partly because of increased coal production, partly because of shortages in supply of pumping equipment, supply pipes, water and labour, but principally because the question of cost is allowed to determine the measure of control undertaken, the various colliery refuse heaps are becoming more and more prone to fire and pollute the atmosphere.

A certain degree of control is achieved at Thornley, Wheatley Hill and Deaf Hill by spraying water on to the tip faces, but the system of dragging and consolidating the heaps as formed in use at Murton has more to commend it simply because risk of internal chemical combustion is appreciably reduced when the supply of oxygen, provided by the airpockets of a loose tip, is cut off.

In my opinion it is not enough merely to regard burning spoilbanks as nuisances under a particular section of a particular act and thereby calling for abatement. It is not enough to regard them as the necessary permanent evils of any expedient. As their name implies these monstrous refuse heaps have despoiled the face of every coalfield in the land during their 100 years of growth and eventually the whole matter will have to be considered at high level with a view to restoring: not only the amenities of the whole neighbourhoods involved, but the permanent value of the land both to agriculture and building and questions of cost overcome and relegated to a position of secondary consideration.

MOVABLE DWELLINGS.

No applications were received for licences to occupy huts, caravans, etc., in this district.

VERMINOUS PREMISES.

Twenty-nine Council houses and nine private houses were disinfested for the presence of bed bugs. Accounts are rendered in the case of private dwellings for time and materials expended.

Measures were taken and advice given in 72 cases of infestation of houses by cockroaches.

DISINFECTION OF PREMISES.

872 visits and re-visits were made to houses during the year in respect of infectious disease enquiries and disinfections purposes. The following table shews the number of disinfections carried out during the year :—

Scarlet Fever	..	..	378
Diphtheria	..	..	97
Meningitis	..	..	21
Erysipelas	..	..	1
Chicken Pox	..	..	—
Tuberculosis	..	..	70
Cancer	..	..	1
Diarrhoea	..	..	—
Bronchitis (Acute)	..	..	1
Para-typhoid	..	..	1
Measles	..	..	—
Poliomyelitis	..	..	35
Typhoid	..	..	1
Dysentery	..	..	—
Total	..	..	<u>606</u>

LICENSED PREMISES, CLUBS, ETC.

- 71 inspections of licensed premises and clubs.
- 5 informal notices were served on occupiers.
- 5 outstanding notices were complied with.

CINEMAS AND PUBLIC HALLS.

- 96 inspections were made in respect of heating, lighting ventilation and sanitary accommodation.
- 8 informal notices were served.
- 6 notices were complied with.

. RODENT CONTROL.

Maintenance treatment of all sewers was continued throughout the year and an estimated number of 3,472 rats destroyed in the process. Methods of treatment recommended for adoption by the Ministry do not include recording of poison takes and destruction of rat population is estimated on Ministry formula.

An improvement generally in the degree of infestation of Council tips was reported by the Rodent Officer who continued his periodic inspections.

A greatly increased number of reports of rat infestation in private dwellings and vicinity was received and dealt with during the year, unquestionably the result of the application of the free treatment clause to private dwellings.

SEWERS

	Manholes Baited	Estimated number of rats destroyed	Approximate Cost	Recoverable by Grant	Nett cost to Council
Maintenance Treatment	3516	3472	£504 18 0	£151 9 5	£353 8 7

LANDS AND PREMISES

	Number dealt with	Degree of Infestation	No. of Baiting Points	Estimated No. of rats destroyed	Approximate cost	Recovered from Occupier or Min. of Food	Nett cost to Council
Council Tips	11	10 major 1 minor	287 4	352 7	£43 19 11	—	£43 19 11
Council Sewage Works	8	4 major 4 minor	96 16	118 30	£13 15 0	—	£13 15 0
Business Premises	10	9 major 1 minor	212 4	254 7	£99 13 3	£87 13 3	£12 0 0
Private Dwellings	67	3 major 64 minor	48 257	60 298	£24 15 3	£14 17 2	£9 18 1
Total	96	26 major 70 minor	924	1126	£182 3 5	£102 10 5	£79 13 0

Co-operation between the County War Agricultural Committee and the Railway Company continued when major disinfection problems arose.

A record of sewer maintenance and detailed treatment of surface infestations are shewn in table form opposite.

HOUSING, SEWERAGE, ETC.

(Contributed by the Acting Engineer & Surveyor).

1. HOUSING.

The construction of new houses in the district continued as rapidly as the supplies of Building Materials and the availability of labour permitted. The Council had the considerable distinction of heading the list of Rural Authorities in post war housing construction by a substantial margin as indicated in the official Ministry of Health Housing Returns. During the year 394 permanent and 316 temporary houses were completed and occupied, bringing the total number of houses completed since the end of the war to 562. At the close of 1947 the number of houses owned by the Council was 5,185 representing almost 25% of the total number of dwellings in the district.

2. NEW TOWN.

The year 1947 marks a particularly important stage in the history of the Easington Rural District insofar as the Council's proposal to centralise all Housing Development in the form of a New Town complete with Diversified Industry was officially accepted by the Minister of Town & Country Planning as a New Town under the New Towns Act, 1946. The proposal which was the first to be suggested by any Local Authority in the Country was the subject of a Draft Designation Order under Section 1 of the New Towns Act, 1946, dated November 10th, 1947.

3. SEWERAGE.

The usual maintenance of the existing system of sewerage was carried out during the year. Extensions to the system were mainly in connection with new housing development although the following additional works were carried out :—

(a) Replacement of 160 lin. yards of 18 ins. diameter steel tube sewer by 21 ins. diameter steel tube on the main Blue House Gill Outfall, Blackhall.

(b). Improvements to the system serving Alfred, Allen and Cuba Streets, Easington Colliery to prevent flooding during storms involving the laying of 230 lin. yards of 9 ins. and 12 ins. diameter sewers were effected.

(c). Provision of a ventilating shaft in Salters Lane, Shotton to relieve complaints of smell nuisance arising from an air valve on the sewage pumping main.

A detailed scheme providing for the replacement of the existing sewage disposal works serving the Wellfield Road, Wingate, area by a pumping station and pumping main discharging into the main Wingate to the Sea Outfall was submitted to the Ministry of Health for approval and grant under the Redistribution of Industry Act, 1946.

4. WATER SUPPLY.

Maintenance of service reservoirs and distributing mains of the Council's water supply system was carried out during the year. Additions to the supply mains were necessitated in Haswell, Thornley, Wheatley Hill and Deaf Hill consequent upon New Housing Development.

A scheme for the extension of a piped water supply into the agricultural areas of Sheraton and Durham Lane, Easington was submitted to the Ministry of Health for approval and grant under the Rural Water Supplies and Sewerage Act, 1944.

5. MISCELLANEOUS.

Extensions to culverts at Easington and Wheatley Hill were carried out during the year to further provide for the tipping of domestic refuse from these areas.

Schemes for culverts to provide extended tipping space for household refuse at Easington and Horden over the next 20 years were submitted to the Ministry of Health for approval and grant under the Redistribution of Industry Act, 1946.

A detailed proposal to culvert Wingate Beck from the Colliery Culvert to a point below the bridge in Front Street, Wingate necessary because of the considerable nuisance arising from Colliery works pollution and flooding was also submitted to the Ministry of Health for approval and grant under the Redistribution of Industry Act, 1946.

HOUSING.

710 new houses were erected during the year and 497 occupied throughout the district.

63 vacant council houses were inspected and defects reported for attention.

89 council houses were inspected prior to exchange and the Surveyor and Accountant advised of details of disrepair. A

valuable opportunity is secured under this pre-exchange system of inspection to advise refusal of any proposed exchange where a house is found to be wilfully neglected.

It was decided by resolution of the Council during the year that initial reports of disrepair in Council Houses be only accepted via the various rent collectors, the only exceptions being made in cases where uncertainty exists, nuisance of a public health nature exists, or is likely to arise.

OVERCROWDING.

172 applications for Council Houses were received in the department, investigated and recorded during the year. Reports on the living conditions and circumstances of the applicants were prepared and forwarded to the local housing committees for their information and consideration.

BUILDING LICENCES.

The influx of applications for building licences continued throughout the year entailing numerous visits and taking up a considerable proportion of the inspectors' working time to the detriment of their statutory duties. In November, shortage of staff as a result of resignations and prolonged absence due to ill health made it imperative to seek alternative arrangements: applications of a purely maintenance nature were subsequently taken over by the surveyor's department whilst the inspectors continued to deal with applications having any particular significance under the Public Health Act, Factory Act or Food & Drugs Acts, Orders and Regulations. This arrangement has worked very satisfactorily and given the inspectors a welcome relief and opportunity to make up certain leeway on work in which they are more concerned and for which they are better qualified.

INSPECTIONS UNDER THE HOUSING ACT, 1936.

Number of visits and re-visits	..	..	669
Number of informal notices served	..	..	93
Number of statutory notices served	..	..	6
Number of notices complied with	..	..	65

FACTORY ACT, 1937.

Regular inspection of premises controlled by the above Act has been maintained, principally in connection with sanitary accommodation, heating, lighting, ventilation, overcrowding and cleanliness.

1 outstanding notice was satisfactorily complied with.

Premises	Number on Register	Inspect- ions	Notices Served	Occupiers Prosecuted
Factories—				
With Mechanical Power	35	213	—	—
Without do. do.	21			
Bakehouses	26			
Workplaces	40			
Total --	122	213	—	—

SUPERVISION OF FOOD SUPPLIES.

Inspection of Meat and Other Foods.

MEAT.

A total of 14,052 animals was slaughtered at the Ministry Controlled Abattoir at Station Town during the year. The reduction of 2,431 animals sent in for slaughter compared with the 1946 figures is made up of 151 cattle, 122 calves, 44 pigs and 2,114 sheep. Since the incidence of disease in sheep is negligible when compared with other food animals it will be appreciated that condemnation figures will be more closely related to the number of cattle, casualty and mart reject animals slaughtered than to any overall figure.

This abattoir continues to serve the needs of the whole Rural District with its 80,000 inhabitants and as in past years accommodation and facilities at peak slaughtering periods were taxed beyond all reasonable limits with the same consequent unavoidable difficulties in slaughtering procedure and handling of carcasses and offal.

Arrangements made by the Ministry of Food continued during the year for disposal of unsound meat under guarantee that it be not used for human consumption. Such meat and offal is stained before removal for conversion into industrial and commercial products. The principal ductless glands are separately collected for medicinal purposes whilst unedible offal with no industrial significance is disposed of locally for incorporation into farm land.

There is consequently a minimum of waste and reduced possibility of any nuisance of a public health nature.

A reference to the detailed survey of causes of condemnation will shew that T.B. continues to be the greatest scourge of food animals and responsible for more loss than all other diseases combined whilst among edible offal, cirrhosis of the liver, predominantly found in fluke infested livers of Irish cattle, once again exacts its heavy and regular toll.

A long established rat infestation of the abattoir premises assumed major proportion during the year and persisted for some time despite Ministry efforts at extermination. Only when a part of the premises was eventually dismantled following urgent and continual advice were the harbourages exposed and the infestation cleared.

Stock slaughtered, the incidence of disease, and comparative figures of condemnation during past years follow in tabular form for convenience in reference.

	Cattle excluding Cows	Cows	Calves	Sheep	Pigs
Number Slaughtered at Government Controlled Abattoir	2574 plus 36 Casualties	554 plus 112 Casualties	599 plus 170 Casualties	9823 plus 95 Casualties	62 plus 27 Casualties
Number Slaughtered under private license	—	—	—	1	935
Whole Carcases condemned (T.B. only)	2 plus 3 Casualties	2 plus 23 Casualties	1 plus 1 Casualty	—	—
Carcases of which some part or organ condemned (T.B. only)	459		2	—	6
Percentage of number inspected affected with T.B.	14.01%		0.26%	—	6.74%
Carcases condemned. (All diseases excluding T.B.)	1 plus 4 Casualties	1 plus 4 Casualties	—	2 plus 10 Casualties	1 Casualty
Carcases of which some part or organ condemned. (All diseases excluding T.B.)	449		2	98	5
Percentage of number inspected affected with disease other than T.B.	13.71%		0.26%	0.98%	5.62%

Carcases, Organs and Edible Offal condemned as being unfit for Human Consumption during year 1947

	Carcases, etc.				Lungs (Sets)			Hearts		Kid- neys	Livers			Heads & Tongues		Sets Stomachs and Intestines	Fat	Udders
	Beef	Veal	Mutton	Pork	Ox	Sheep	Pig	Ox	Pig	Ox	Ox	Sheep	Pig	Ox	Pig	Ox	Ox	Cow
Aspirations					28													
Actinomycosis														17				
Abscesses	12 sts.	22lbs. c									58							
Bacillary Necrosis											11							
Bruising & Injury	1c+17 sts.	37lbs c	1c+9 sts.	8lbs. c														
Capillary Angioma											13							
Cirrhosis											439	64	3					
Congestion					12	2												
Cystic Conditions			3 sts.		292	13					14	22						
Contamination																		
Decomposition	1c+78 sts.		2+7c											1c				
Degeneration											4							
Emaciation &/or Oedema	2c		1c	1c														
Immaturity																		
Johnes Disease	1c																	
Lipoma																	3 sts.	
Mastitis																		92
Melanosis	1																	
Nephritis										28								
Pericarditis(Including Septic & Traumatic)								10										
Pleurisy					8	3												
Pneumonia					4	2												
Pyæmia	1c																	
Peritonitis	17 sts.																	
Septic Conditions	3c		1c+8 sts.															
Traumatism																		
Tuberculosis	5+159 sts. 26c+41 sts.	1+1c		3 sts.	428		4	22	1	34	77		2	170	1	22	22	8

"C" indicates Casualty Animal

PROVISIONS, FISH, ETC., CONDEMNED AS BEING UNFIT FOR HUMAN CONSUMPTION DURING YEAR, 1947.

Cause of Unfitness	(A) Provisions, Loose	(B) Tinned Foods	(C) Fish, etc.
	sts. lbs.	sts. lb.	sts. lb.
Decomposition			
Rancidity & Mould Stains	Bacon 1 10½		
Extensive Mould	Butter 12 6¾		
Contamination & Damage by Water	Cheese 7 4¾		
(A) Fermentation & Mould	Sugar 5 5		
Damage by Water	Dried Fruit 12 1		
Contamination by Mice	Lentils 12 5		
Decomposition	Biscuits 1 0		
Contamination by Mice	Cooked Tongue 4		
Dampness	Cereals 13½		
Decomposition	Tea 1		
Decomposition	Sausage 10		
	Meat Pies 12		
(B) Decomposition due to blown & damaged tins		308 Tins Corned Beef 72 6½	
		423 Tins Corned Mutton 24 4	
		331 Tins Meat Products 31 3½	
		419 Tins Vegetable Products 35 4¾	
		299 Tins Fish Products 9 4	
		511 Tins Milk 32 13	
		130 Tins Fruit 18 3	
		31 Tins Preserves 2 13	
		50 Jars Preserves 17 12	
		Sundries, Soups, etc. 5 7½	
Decomposition			Cod Fillets 1 6
(C) Contamination			Confectionery 10½

Total weight of Meat and Edible Offal condemned	4436 sts. 13lbs.
Total weight of Tinned Foods, etc., con- demned	307 sts. 6 $\frac{1}{4}$ lbs.
Total Weight	4744 sts. 5 $\frac{1}{4}$ lbs.
<hr/>	
=29 Tons 13 Cwts. 0 St. 5 $\frac{1}{4}$ lbs.	

Year ending 31st December	Weight of Meat & Other Food Condemned			
	tons	cwt.	sts.	lbs.
1936	1	3	2	12
1937	4	13	1	1
1938	2	1	6	3
1939	3	6	5	13
1940	21	1	3	0
1941	17	12	5	2
1942	11	3	4	7
1943	18	12	4	6 $\frac{3}{4}$
1944	21	4	4	1 $\frac{1}{4}$
1945	25	11	1	10 $\frac{1}{2}$
1946	23	1	0	5 $\frac{3}{4}$
1947	29	13	0	5 $\frac{1}{4}$

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

Vehicles used for the transport of meat from the abattoir were frequently examined and maintained generally in a clean condition. When found to be at fault an informal request was sufficient to have the wagon swilled and scrubbed down. During the year galvanised covered containers were brought into general use for the transport of edible offal, admittedly an overdue, but nevertheless welcome innovation.

DISEASES OF ANIMALS ACTS, 1894-1909.

No confirmation of any notifiable disease under the above Acts—Swine Fever, Anthrax, etc., were received during the year.

SLAUGHTER OF ANIMALS ACT, 1933.

As far as it is practicable in view of the limited accommodation and facilities at the Abattoir precautions are taken to prevent any unnecessary suffering by the animals all of whom are mechanically stunned before slaughter.

TUBERCULOSIS ORDER, 1938.

Two cows were received at the Abattoir under the above order. Both were found on post-mortem inspection to be affected but in one the stage was 'not advanced' and the carcase passed after condemnation of certain organs and offal. In the second the disease was generalised and the carcase with all organ and offal condemned.

OTHER FOODS.

In view of the control exercised by the Ministry of Food over all points and rationed commodities all claims by retailers in respect of alleged unfit food falling into the above categories must be confirmed before the Ministry will authorise replacement of stocks. This arrangement continues to entail considerable work on occasions in examining all items which are subject of claim. Quantities justifying transport and capable of conditioning for human food or further processing for animal feeding are notified to the Ministry Salvage Department. Local arrangements are concluded for lesser amounts.

FOOD AND DRUGS ACT, 1938.

Supervision of all premises where food is prepared, stored or sold was continued and inspections carried out regularly during the year with a view to securing and maintaining statutory requirements in respect of the premises and with particular emphasis on hygienic conditions of premises, conduct of business and personal cleanliness of staffs concerned.

It is noteworthy that British Restaurants throughout the District which had previously engaged the regular attention of the department, were closed during the year owing to lack of support.

FRIED FISH SHOPS.

127 inspections of premises were made during the year and 5 informal notices served in respect of infringements of Section 13 of the Act. All notices were complied with. No application for registration under Section 14 was made during the year.

MANUFACTURE & SALE OF ICE CREAM.

Ten applications for registration of premises for the sale of ice-cream under Section 14 of the Food and Drugs Act, 1938 were submitted and approved without exception.

The year saw the introduction of important new regulations controlling the manufacture of ice-cream still further in the interests of public health, namely The Ice-Cream (Heat Treatment) Regulation, 1947. The effect broadly speaking, is to divide the Trade into (a) simple retailers, (b) cold mix manufacturers, and (c) hot mix manufacturers, and in addition, to ensure that all ice-cream undergoes a prescribed form of heat treatment before being offered for sale to the public.

Administration of the Regulation and relevant sections of the Food and Drugs Act present little difficulty in the case of members of classes (a) and (b). The small hot mix manufacturers, however, of this District are affected to a much greater extent by the Regulations and difficulties in certain cases of securing adequate premises and equipment still persist.

All manufacturing premises were visited regularly and in general a praiseworthy readiness to co-operate was found in any measure designed to improve production. 42 samples were taken between March and November and submitted for examination, in the first place, at King's College, Newcastle and later on the transfer of laboratory services, to the Public Health Laboratory, Newcastle. B. Coli testing formed the original base of the examination and this was superseded later in the year by a methylene reduction test. Under the first system of examination 12 samples satisfied the test and 9 were unsatisfactory. Under the revised system 10 were satisfactory and 17 failed to attain the recommended standard. 6 samples were subjected to both tests and it is of interest to note that 4 of the 6 satisfied the B. Coli Test, but only 1 of the 6 satisfied the methylene reduction test.

The method of storage of samples after collection and before delivery to the laboratory staffs was most unsatisfactory during this period. It was found impossible to maintain the samples in their frozen state and with the increased temperature of liquifaction and associated multiplications in bacterial counts many of the results tended to give false reflections of the products sampled. This position has subsequently been rectified by the purchase of an insulated container fitted to receive a charge of solid carbon dioxide which literally transforms it into a miniature refrigerator and results in samples now being transported and delivered in ideal condition.

In the interpretation of the methylene blue results it may also be noted that although such test appears at present to be the simplest and most practicable single test for the routine grading of ice-cream the presence of certain organisms having no hygienic significance are capable of influencing the result and consequently it is recommended that judgment be based on the results of a series of samples rather than any individual sample.

Premises	Number Registered	Number of Inspections	Notices Served	Occupiers Prosecuted
Fish Shops	54	127	5	—
Butchers' Shops	50	118	7	—
Ice Cream Shops	26	295	5	—
Restaurant Kitchens	—	72	—	—
Other Food Premises	—	299	14	—
TOTALS —	130	911	31	—

MILK SUPPLY.

177 samples of raw and pasteurised milk were taken for examination during 1947, and the following results obtained :—

	No. of Samples taken	(a) Methylene Blue Test			(b) Bacillus Coli Test			Total Count and Phosphate Test (Pasteurised)			Biological Test for Tuberculosis			
		Satisfactory	Unsatisfactory	% Unsatisfactory	Satisfactory	Unsatisfactory	% Unsatisfactory	Satisfactory	Unsatisfactory	% Unsatisfactory	Negative	Positive	Inconclusive	% Positive
Raw Milk	139	102	37	26.62%	113	26	18.70%	—	—	—	121	8	1	6.61%
Pasteurised Milk (Wellfield Plant)	38	36	2	5.26%	37	1	2.63%	36	2	5.26%	—	—	—	—

MILK (SPECIAL DESIGNATIONS) ORDER, 1936-44.

The number of persons licensed to produce, bottle or sell designated milk is as follows :—

	Grade of Milk			Total
	Tuberculin Tested	Accredited	Pasteurised	
Wholesale Producers	2	10	1	13
Retail Producers	2	8	—	10
Bottler Retailers	—	—	1	1
Retailers	—	—	18	18
TOTAL —	4	18	20	42

181 samples of milk were taken during the year and submitted for examination at the Public Health Laboratory, Newcastle and results of the respective tests are shewn in tabular form for quick and easy reference. It was, unfortunately, necessary during the latter part of the year to curtail, at the request of the bacteriologist, the number of milk samples sent in for B. Tuberculosis detection because of the heavy demands on existing facilities and staff consequent on the removal of laboratory services.

Of the animal inoculations carried out one was inconclusive—the guinea pig dying before an adequate diagnosis could be made—and 8 shewed the presence of Tubercle in the milk—a positive incidence in the samples tested of 6.61 %. In each case the County Medical Officer was advised so that Veterinary Inspectors of the Animal Health Division of the Ministry of Agriculture could conduct further examination of the dairy herds at the farms concerned.

Regular visits were made to the East Durham Co-op. Dairies pasteurisation plant at Wellfield which despite difficulty in securing replacement of essential equipment continues to function with a good degree of efficiency as indicated in the results of samples taken at weekly intervals from the premises.

Two applications were made during the year for registration as retail purveyors both being approved. Numbers of producers and purveyors in the Rural District together with details of inspectors' farm visits and informal notices of infringements of Milk and Dairies Orders are tabulated below.

	Number Registered	Inspections	Notices Served	Prosecutions
Producers ..	123	312	36	—
Purveyors ..	18	88	—	—

In conclusion, I would like to record my sincere appreciation of your help and guidance made so readily available to me since my appointment, the loyal support both of inspectors' and clerks and the co-operation of all other departments.

I am, Sir,

Your obedient servant,

R. R. SHORT,

Senior Sanitary Inspector.
